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09/992,165	11/06/2001	Stephen Sherman	60027.0045US01/BS01195	6370
23552	7590	01/25/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SING, SIMON P	
			ART UNIT	PAPER NUMBER
			2645	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/992,165

Applicant(s)

SHERMAN ET AL.

Examiner

Simon Sing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. US 6,553,221 in view of Boakes et al. US 5,386,460.

1.1 Regarding claim 1, Nakamura discloses a method for notifying a mobile station 20a of incoming calls while the mobile station 20a is not reachable due to power-off or out-of-range (figure 1; column 3, lines 42-51). Nakamura teaches:

receiving a call from a calling party directed to the mobile station 20a (column 3, lines 15-17);

obtaining caller identification information on the calling party (column 3, lines 17-21);

determining whether the mobile station 20a is reachable (registered) (column 3, lines 17-18, 42-51; column 5, lines 37-40);

if the mobile station 20a is not reachable, stored the caller identification (column 3, lines 17-21), and checking the registration status of the mobile station

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20a at a regular frequency until it becomes available (figure 7, step 11; column 5, lines 42-51);

if the mobile station 20a becomes reachable, forwarding the caller identification, obtained during the operative unavailability, to the mobile station 20a for storage in a memory (missed call log) for display (column 3, lines 22-34).

Nakamura further teaches that in an incoming call at a mobile station is not answered, a caller ID is displayed on a display and stored in a memory (column 1, lines 14-21). In summary, Nakamura teaches storing caller identifications of both missed incoming calls when mobile station 20a is not reachable and when mobile station is reachable but not answered in a memory, but fails to teach these call identifications are stored at a same memory area, or a missed call log.

However, Boakes discloses a telephone terminal with call logs. Boakes teaches separate call logs for incoming calls not answered, incoming call answered and outgoing calls (column 3, lines 53-68, column 4, lines 1-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Nakamura's reference with the teaching of Boakes, so that caller identifications of incoming calls when mobile station 20a was not reachable would have been stored in a call log for calls not answered when mobile station was reachable, because incoming calls when the mobile station 22a was not reachable and incoming calls not answered when the mobile station 22a was reachable, both fell into same category of calls missed.

1.2 Regarding claim 3, Nakamura teaches displaying incoming call information (column 3, lines 29-34).

1.3 Regarding claim 4, Nakamura teaches displaying incoming call information, including caller identification (column 3, lines 18-21, 31-34).

2. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. US 6,553,221 in view of Boakes et al. US 5,386,460 and further in view of Farris US 5,805,997.

2.1 Regarding claim 7, the modified Nakamura reference, teaches storing caller identifications in a missed call log, but fails to teach transmitting IS-41 location request from a wireless switch to a home location register (HLR).

However, Farris discloses using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a mobile switching center, or MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Nakamura's reference, which was modified by Boakes, with the teaching of Farris, so that a IS-41 location request would have been transmitted from a MSC to a HLR, because IS-

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41 was a standard protocol used in North America cellular system for pre-call validation.

2.2 Regarding claim 8, Nakamura teaches determining whether mobile station 20a is capable of accepting a call (column 5, lines 37-40). In order for mobile station 20a being capable to receive a call, the mobile station 20 is inherently powered on and within a service area.

3. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. US 6,553,221 in view of Boakes et al. US 5,386,460 and further in view of Foti US 5,974,309.

The modified Nakamura reference, teaches storing caller identifications in a missed call log, but fails to teach obtaining caller identification information from a home location register (HLR) when a caller is a cellular subscriber.

However, Foti teaches using IS-41 signaling to query a HLR for calling line identification of a mobile station and sending the calling line identification to a called mobile station (column 4, lines 31-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Nakamura's reference, which was modified by Boakes, with the teaching of Foti, so that the caller identification information would have been obtained from a HLR, and a IS-41 protocol would have been used for sending call identification information, because when a caller

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was a mobile subscriber, because such a modification would have enabled the modified system to obtain callers' ID from cellular networks.

4. Claims 1, 3-6, 9 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221 and further in view of Boakes et al. US 5,386,460.

1.1 Regarding claim 1, Barvesten discloses a method of forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to the mobile station 10 when it becomes available in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10  
(column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party (column 5, lines 30-32; column 6, lines 5-10);

determining whether the mobile station 10 is reachable (registered)  
(column 4, lines 1-20; column 5, lines 23-30, 63-66);

if the mobile station 10 is not reachable, stored the caller identification  
(column 5, lines 38-43; column 6, lines 5-10), and detecting the registration status of the mobile station 10 whether it has become available (column 6, lines 51-53);

if the mobile station 10 becomes available, forwarding the caller identification, obtained during the operative unavailability, to the mobile station 10 for storage in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63; column 7, lines 5-10).

Barvesten teaches detecting the registration status (availability) of mobile station 10, but fails to teach checking the status periodically. Barvesten also fails to teach storing caller identification, obtained during the operative unavailability, in a call log for with call identification obtained during calls not answered when the mobile station 10 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11). Nakamura further teaches storing call identification in a memory (missed call log) for calls not answered when mobile station 20a is available.

In addition, Boakes discloses a telephone terminal with call logs. Boakes teaches separate call logs for incoming calls not answered, incoming call answered and outgoing calls (column 3, lines 53-68, column 4, lines 1-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the



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teachings of Nakamura and Boakes, so that a MSC 16 would have periodically checking the status of mobile station 10 to see whether it had become reachable (registered), and caller identifications obtained during the operative unavailability, would have been stored in a call log for call not answered, because such modification would clarified Barvesten's teaching of how status detection was made, and because incoming calls when the mobile station 10 was not available and incoming calls not answered when the mobile station 10 was available, both fell into same category of calls missed.

4.2 Regarding claim 3, Barvesten teaches displaying a question regarding whether a return call is desired on the mobile station 10 (column 6, lines 62-63).

4.3 Regarding claim 4, Barvesten teaches displaying callers' information of missed calls on the mobile station 10 (column 6, lines 58-63).

4.4 Regarding claim 5, Barvesten teaches that caller's ID includes telephone number and name (column 5, lines 33-43, 50-54; column 6, lines 28-34, 58-63).

4.5 Regarding claim 6, Barvesten teaches that a caller's information includes data an time (column 6, lines 42-49).

4.6 Regarding claim 9, Barvesten teaches obtaining a caller's name from a calling name database (column 5, lines 33-43; column 6, lines 28-34).

4.7 Regarding claim 12, Barvesten teaches determining whether the mobile station 10 is re-registered to receive call (column 5, lines 45-47; column 6, lines 51-53).

4.8 Regarding claim 13, Barvesten teaches querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20).

4.9 Regarding claim 14, Barvesten discloses a method of forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to the mobile station 10 when it becomes available in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party from a calling name database (column 5, lines 27-43; column 6, lines 28-34);

querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20; column 5, lines 20-30, 63-66);

if the mobile station 10 is not reachable (registered), stored the caller identification in a caller identification queue (column 5, lines 38-43, 50-54; column 6, lines 5-10, 58-63; column 7, lines 5-10);

if the mobile station becomes reachable (registered), forwarding the caller identification, obtained during the operative unavailability, to the mobile station 10 for storage in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63).

Barvesten fails to teach storing caller identification, obtained during the operative unavailability, in a call log for with call identification obtained during calls not answered when the mobile station 10 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11). Nakamura further teaches storing call identification in a memory (missed call log) for calls not answered when mobile station 20a is available.

In addition, Boakes discloses a telephone terminal with call logs. Boakes teaches separate call logs for incoming calls not answered, incoming call answered and outgoing calls (column 3, lines 53-68, column 4, lines 1-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teachings of Nakamura and Boakes, so that caller identifications obtained during the operative unavailability, would have been stored in a call log for call not

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answered, because incoming calls when the mobile station 10 was not available and incoming calls not answered when the mobile station 10 was available, both fell into same category of calls missed.

4.10 Regarding claim 15, Barvesten teaches determining whether the mobile station 10 is switched on and within a service area (column 1, lines 36-42; column 6, lines 51-53).

4.11 Regarding claim 16, Barvesten teaches determining from a home location register (HLR) whether the mobile station 10 has become reregistered to receive call (column 4, lines 1-20; column 5, lines 45-47; column 6, lines 51-53).

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Nakamura et al. US 6,553,221 and further in view of Boakes et al. US 5,386,460.

Skog discloses a system for providing caller ID, obtained while a mobile terminal 30 is unreachable (not registered), to the mobile station 30 in a mobile communications network (Abstract; column 2, lines 15-19). The communications network comprises:

- a wireless switch (MSC 40) operative

- to receive a call from a calling party directed to the mobile station 30 (column 5, lines 62-67, column 6, line 1); and a

home location register (HLR) 50 operative

to obtain caller identification information on the calling party from a database (column 6, lines 57-67; column 7, lines 1-4);

to determine whether the terminating mobile terminal is reachable (registered) to receive calls (column 6, lines 29-67; column 7, lines 1-4);

to send the caller identification information to a database (identification queue) for storage if the terminating mobile terminal is not reachable (column 6, lines 57-67; column 7, lines 1-4); and

to forward the stored caller identification from the database to the terminating mobile terminal if the terminating mobile terminal becomes reachable (column 7, lines 48-67; column 8, lines 1-3).

Skog fails to teach storing caller identification, obtained when mobile station 30 is unreachable, in a call log for with call identification obtained during calls not answered when the mobile station 30 is available.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and for display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11).

Nakamura further teaches storing call identification in a memory (missed call log) for calls not answered when mobile station 20a is available.

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In addition, Boakes discloses a telephone terminal with call logs. Boakes teaches separate call logs for incoming calls not answered, incoming call answered and outgoing calls (column 3, lines 53-68, column 4, lines 1-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Skog's reference with the teachings of Nakamura and Boakes, so that caller identifications obtained when mobile station 30 was unreachable, would have been stored in a call log for call not answered, because incoming calls when the mobile station 30 was unreachable and incoming calls not answered when the mobile station 10 was reachable, both fell into same category of calls missed.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Nakamura et al. US 6,553,221 and further in view of Boakes et al. US 5,386,460 and further in view of Farris US 5,805,997.

The modified Skog reference, teaches determining whether the mobile station 30 is reachable, but fails to teach transmitting IS-41 location request from a wireless switch to a home location register (HLR).

However, Farris discloses using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a mobile switching center, or MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Skog's reference with the

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teaching of Farris, so that a IS-41 location request would have been transmitted from a MSC to a HLR, because IS-41 was a standard protocol used in North America cellular system for pre-call validation.

7. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Nakamura et al. US 6,553,221 and further in view of Boakes et al. US 5,386,460 and further in view of Barvesten US 6,311,057.

The modified Skog reference, teaches storing caller identification, such as a telephone number in a missed call log, but fails to teach the caller identification includes a caller's name and the date and time of a call.

However, Barvesten discloses a method of forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to a mobile station 10 when it becomes available in figures 1-3. Barvesten teaches that caller identifications include caller's name, date and time of a call (column 5, lines 33-43; column 6, lines 28-34, lines 42-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Skog's reference with the teaching of Barvesten, so that caller identification information would have included a caller's name, date and time of a call, because such a modification would have provided more information about a call to a called party.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3-18, 20 and 21 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

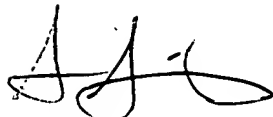
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are



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unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



S.S.

01/14/2005

FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

